

ABSTRACT

IMMERSIBLE UNMANNED AIR VEHICLE AND SYSTEM FOR LAUNCH, RECOVERY, AND RE-LAUNCH AT SEA

[0039] A sea-launched and recovered unmanned aircraft is disclosed. The aircraft is jet-powered and has features and systems to maintain watertight integrity such that it may be released from a submerged submarine or dropped into a body of water by a ship or an aircraft. The aircraft is buoyant and remains at or near the water surface before its rockets are ignited. The rockets propel the air vehicle out of the sea and accelerate it to flying speed at which time a jet engine is started and the rockets are jettisoned. The air vehicle performs its mission independently or in conjunction with other ones of the air vehicles. The air vehicle then returns to an assigned splashdown point at sea via, for example, an engine-off “whip-stall” maneuver. A submarine or ship may retrieve the air vehicle and readies it for another mission.